



Docket No.: 1454.1720

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Steffen JUNGHANNS et al.

Serial No. 10/579,407

Group Art Unit: 2617

Confirmation No. 6145

Filed: May 15, 2006

Examiner: Kathy W. Wang-Hurst

For: ESTABLISHMENT OF A TRANSCODER-FREE OPERATION CONNECTION

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

Applicants request review of the final rejection in the above-identified application. No amendments are being filed with this request. This request is being filed with a Notice of Appeal and the requisite fee.

If there are any additional fees associated with filing of this Request, please charge the same to our Deposit Account No. 19-3935.

REMARKS

Claims 16-31 are pending and under consideration. Claims 16 and 25 are the independent claims.

A pre-appeal brief panel review of the identified appealable issue I discussed below is requested.

I. The cited prior art, alone or in combination, does not teach all of the recited features of the claims

In the final Office Action mailed February 26, 2010, independent claims 16 and 25 were rejected under 35 USC § 103(a) as being unpatentable over Witzel (U.S. Patent Application Pub. No. 20007/0171841) in view of Bachmann (U.S. Patent No. 7,577,152).

In general, not all network terminals in a network will always support the same codec mode and, more importantly, the same codec mode configurations (a codec mode configuration being a set of codec modes based on which the two terminals can communicate). Therefore, the two or more terminals involved must agree on a codec mode configuration. This agreed on codec mode configuration provides a set of codecs on which the two or more terminals can potentially communicate. During a communication session, the two or more terminals will then effectively agree on a codec mode for communication. Depending on outside circumstances (for example, too much bandwidth being consumed on an air interface), the two or more terminals might change the codec mode for communication. However, this change can only occur within the set of codec modes that were previously agreed upon (the agreed upon codec mode configuration). Thus, when a common codec mode configuration is available to all of the two or more terminals, transcoder-free operation (TrFO) or tandem free operation (TFO) is possible. Of course, if the two or more terminals do not have a common codec mode configuration that is supported by each of them, each of the terminals will choose a different codec mode configuration, making TrFO or TFO impossible.

Claim 16, for example, provides for reducing the need for transcoding in a communication session between at least two terminals (for example, an originating terminal and a terminating terminal). To this end, claim 16 provides for establishing a transcoder-free operation connection between terminals at the radio network controller and not at each terminal or network node itself. Moreover, the radio network controller determines and establishes a transcoder-free operation connection based upon receipt of a request from a switching unit

relating to use of at least one subset of at least one codec mode configuration. At least these features of claim 1 are not taught by Witzel.

As a non-limiting example, claim 16 provides a method as described in paragraph [0011] of the specification. The method provides for receiving, by a radio network controller (RNC), a request, from a switching unit, relating to the use of a subset (for example, a/b) of a codec mode configuration (for example, a/b/c). Next, the method provides for checking, by the radio network controller (RNC), whether the requested codecs a/b form a subset of a supported configuration (for example, a/b/c) and, if the subset is supported by the RNC, establishing a transcoder-free operation connection to the switching unit and a communication terminal. The RNC then signals to the switching unit that it is alright to go ahead with codecs a/b. However, to the terminal, via the air interface, the RNC can only signal a certain configuration a/b/c. This leads to a mismatch because the terminal is now allowed to use codec c, but the switching unit does not support codec c. Therefore, the method of claim 16 performs an additional step of restricting the codec mode configuration to the subset by signaling from the RNC to the terminal.

In contrast to claim 16, Witzel does not provide for a radio network controller to receive a request from a switching unit relating to use of at least one subset of at least one codec mode configuration and, as a result, does not provide for the radio network controller itself to establish a transcoder-free operation connection. To begin with, the Examiner has not indicated where Witzel discloses that the RNC (for example, RNC 40 in Fig. 7) receives a request from a switching unit relating to use of at least one subset of at least one codec mode configuration for establishment of a transcoder-free operation connection. Of course, this is likely because Witzel does not teach establishment of a transcoder-free operation connection at the level of the RNC. Instead, Witzel discloses a node-by-node method of establishing a connection between an originating leg (for example, originating leg 41 in Fig. 7) and a terminating leg (for example, terminating leg 43 in Fig. 7), wherein each network node along a communication path must determine transcoding capabilities between each of the other network nodes. In fact, the example in Witzel clearly illustrates this inferior node-by-node method (see paragraph [0017] and Fig. 7). To begin with, the originating network node (MSC 45) must generate an initial supported codec list, where the direct codecs are determined by the intersection of the supported codecs of an originating mobile terminal 46 and the capabilities of the first originating network nodes 45 and 47. The transcoding capabilities are determined by a first originating MGW (media gateway) 47, according to a first originating codec list A1. A second originating network node 48 receives the initial supported codec list from the first origination network node 45. Thereafter, the transcoding capabilities are again determined according to a selected

second originating MGW 49 (for example, according to a second terminating codec list A2). As such, each of the originating network nodes 45 and 48 in the originating leg 41 must receive supported codec lists from a previous node in order to determine the transcoding capabilities (for example, by MGWs 47 and 49). As such, each network node in Witzel agrees upon codec types or configurations, or both, that can be used for coding or decoding, or both, if at least one transcoding is implemented along the communication path. Therefore, each network node needs to analyze its current list of codec types or configuration, or both, prior to the communication and compare its list to the list of any other network node involved in the communication path. The procedure may lead to at least one transcoding step when a network node does not support a selected codec for the communication. More specifically, this situation may occur when using media gateways from different suppliers. Witzel does not disclose the use of the RNC 40 in establishing transcoder-free connection between the nodes of the originating leg 41 and the nodes of the terminating leg 43. Thus, it follows that Witzel also cannot teach signaling, from the radio network controller to the communication terminal, at least one message relating to the subset of the at least one codec mode configuration to be used for transmission of data, as also recited in claim 16.

Claim 16 eliminates the need for the node-by-node processing disclosed in Witzel by providing a method whereby the establishment of a transcoder-free operation connection is carried out at the radio network controller.

The Examiner, at pages 3 and 5 of the final Office Action, acknowledges that Witzel does not disclose the features of the claimed radio network controller (RNC) and establishing a transcoder-free operation connection at the level of the RNC.

Thus, Witzel does not discuss or suggest:

checking in a radio network controller, upon receipt of a request from a switching unit relating to use of at least one subset of at least one codec mode configuration for establishment of a transcoder-free operation connection, whether the at least one requested subset is supported by the radio network controller;

if the at least one subset of the at least one codec mode configuration is supported by the radio network controller, establishing a transcoder-free operation connection to the switching unit and a communication terminal and restricting a codec mode configuration to be used for transmission of data to the subset; and

signaling, **from the radio network controller** to the communication terminal, at least one message relating to the subset of the at least one codec mode configuration to be used for

transmission of data,
as recited in claim 16.

However, the Examiner attempts to make up for this deficiency in Witzel with Bachmann. It is respectfully submitted that Bachmann fails to make up for the deficiencies in Witzel acknowledged by the Examiner. Bachmann, as relied on by the Examiner at col. 1, lines 35-58, merely discloses a conventional RNC and does not specifically disclose the features of the RNC recited in claim 16, for example. More specifically, Bachmann merely discloses an RNC that negotiates a set of AMR modes with a switching center before a UMTS speech connection is set up. In contrast to claim 16, the RNC of Bachmann does not perform the above-discussed features.

Since Witzel and Bachmann, alone or in combination, do not discuss or suggest all of the features of claim 16, claim 16 patentably distinguishes over Witzel and Bachmann.

Independent claim 25 recites features similar to those discussed above with respect to claim 16, such that it is respectfully submitted that Witzel and Bachmann, alone or in combination, do not discuss or suggest all of the features of independent claim 25.

The respective dependent claims also patentably distinguish over the cited prior art for the reasons discussed above with respect to their respective independent claims.

If there are any remaining issues to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such issues.

Respectfully submitted,

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